

Blip OspC2C12	63	64
Blip OspC2-TRO	67	68
Blip OspC5C7	73	74
Blip OspC5C10	69	70
Blip OspC5C12	71	72
Blip OspCB31C10	77	78
Blip OspCB31C12	79	80
Blip OspCPkoTro	81	82
Blip OspC- 55B31/58Pko/56Tro	83	84

Amendments to the specification are indicated in the attached "Marked Up Version of Amendments" (pages i-iii).

#### In the Claims

Please cancel Claim 40.

Please replace Claims 1, 2, 8, 9, 10, 11, 39, 41 and 43 with the following rewritten claims.

1. (Amended) A composition comprising OspC polypeptides from Lyme Disease causing *Borrelia* wherein either:
  - a) said composition comprises one or more OspC polypeptides or immunogenic fragments thereof from at least two *Borrelia burgdorferi sensu stricto* OspC families selected from the group consisting of: A, B, I, and K, excepting the combination consisting of two OspC proteins wherein one OspC protein is from family A and the second OspC protein is from family I, or;
  - b) said composition comprises at least one OspC polypeptide or immunogenic fragment thereof from each of *Borrelia afzelii* OspC families A and B.

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2. (Amended) The composition of Claim 1 comprising one or more OspC polypeptides or fragments thereof from each *Borrelia burgdorferi sensu stricto* family of the group of subpart a).
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8. (Amended) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family A comprises strains B31, CA4, HII, IPI, IP2, IP3, L5, PIF, Pka, Txgw and strains containing *ospC* allele OC1.

9. (Amended) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family B comprises strains 35B808, 61 BV3, BUR, DK7, PB3, Z57 and strains containing *ospC* genes OC2 and OC3.

10. (Amended) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family I comprises strains 297, HB19 and strains containing *ospC* gene OC10, wherein strain 297 is characterized by *ospC* of GenBank accession number L42893.

11. (Amended) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family K comprises strains 272, 297, 28354, KIPP, MUL and strains containing *ospC* gene OC12 and OC13, wherein strain 297 is characterized by *ospC* of GenBank accession number U08284.
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39. (Amended) A chimeric protein comprising OspC polypeptides from two or more Lyme Disease causing OspC families of Lyme Disease causing *Borrelia* wherein said chimeric protein comprises:

- a) a first OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 26 to about nucleotide 621 of an *ospC* gene from a first OspC family and
- b) a second OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 28 to about nucleotide 570 of an *ospC* gene from a second OspC family,

wherein said OspC families are selected from the group consisting of: *Borrelia burgdorferi sensu stricto* OspC families A, B, I, and K, and *Borrelia afzelii* OspC families A and B.

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41. (Amended) A chimeric protein comprising OspC polypeptides from two or more Lyme Disease causing OspC families of Lyme Disease causing *Borrelia* wherein said chimeric protein comprises:
- a) a first OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 53 to about nucleotide 570 of an *ospC* gene from a first OspC family and
  - b) a second OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 28 to about nucleotide 570 of an *ospC* gene from a second OspC family,

wherein said OspC families are selected from the group consisting of: *Borrelia burgdorferi sensu stricto* OspC families A, B, I, and K, and *Borrelia afzelii* OspC families A and B.

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43. (Amended) A chimeric OspC protein selected from the group consisting of: SEQ Id Nos: 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, and 84.

Specific amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages iii-v).

REMARKS

Supplemental Information Disclosure Statement

A Supplemental Information Disclosure Statement (SIDS) is being filed concurrently herewith. Entry of the SIDS is respectfully requested.